****
USACE / NAVFAC / AFCESA **UFGS-02286N (SEPTEMBER 2001)**

Preparing Activity: NAVFAC **New UFGS-02286N (09/01)**

UNIFIED FACILITIES GUIDE SPECIFICATIONS
****

SECTION TABLE OF CONTENTS

DIVISION 02 - SITE WORK

SECTION 02286

TERMITE CONTROL BARRIER SYSTEM

09/01

-- End of Section Table of Contents --

****

USACE / NAVFAC / AFCESA **UFGS-02286N (SEPTEMBER 2001)**

Preparing Activity: NAVFAC **New UFGS-02286N (09/01)**

UNIFIED FACILITIES GUIDE SPECIFICATIONS

****

NFGS-02286

TERMITE CONTROL BARRIER SYSTEM

****

Preparing Activity: PACNAVFACENGCOM

	Typed Name & Reg.	Signature	Date
Prepared by:	B. L. Takeuchi, R.A.	___	09/30/01
Prepared by:	S. Y. Higa	___	09/30/01
Prepared by:	W. T. Takushi, P.E. Branch Manager	___	09/30/01
Approved by:	C. T. Morita, P.E. Division Director	___	09/30/01
Approved for NAVFAC:	Carl E. Kersten, R.A.	____	_____

****

AMSC N/A AREA FACR

****
USACE / NAVFAC / AFCESA **UFGS-02286N (SEPTEMBER 2001)**

Preparing Activity: NAVFAC **New UFGS-02286N (09/01)**

UNIFIED FACILITIES GUIDE SPECIFICATIONS
****
SECTION 02286

TERMITE CONTROL BARRIER SYSTEM
09/01

****
NOTE: This specification consists of furnishing and installing a complete stainless steel mesh system at all penetrations, joints and perimeter foundations as a physical barrier below the concrete slabs and foundations of a structure to prevent the entry of Formosan ground termites into wood components of the structure, similar to laying down a chemical barrier of soil termiticide treatments.

The use of this material does not preclude the use of other preventive measures such as chemical treatment, basaltic termite barrier system and pressure treated lumber for construction to provide maximum protection to the structure. In fact, it is recommended that this material be used in conjunction with chemical treatment at all vulnerable areas such as penetration areas around electrical conduits and plumbing pipes that penetrate the slab as well as the foundation perimeter and shoulder portions of the barrier. This termite chemical protection system must comply with all codes. It is also recommended that pressure treated lumber be used to provide maximum protection to the structure.
****
****
NOTE: This new NFGS-02286N conforms to the requirements of the Unified Facilities Criteria (UFC 1-300-02) Unified Facilities Guide Specifications (UFGS) Format Standard dated March 23, 2001.
****
****
Comments and suggestion on this specification are welcome and should be directed to the technical proponent of the specification. A listing of the technical proponents, including their organization designation and telephone number, is on the Internet.

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.
****

PART 1 GENERAL

****
NOTE: Termite infestation exists throughout the United States and overseas areas with the exception of Alaska. Mesh termite barriers can be prescribed for installation at all sites where termites are likely to establish colonies and make concealed entries to wood construction, when it is deemed appropriate and cost effective.
****

1.1 REFERENCES

SBCCI Public Safety Testing and Evaluation Services, Inc., report 9713 for Termite Control System used to provide protection against subterranean termites.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 478	(1997) Chromium-Nickel Stainless Steel Weaving and Knitting Wire
ASTM A 580/A 580M	(1998) Stainless Steel Wire

1.2 SYSTEM DESCRIPTION

****
NOTE: A complete termite control barrier system encompasses a fine steel mesh placed across all termite entry points to the building, principal entry points include all cracks, joints, penetrations and other termite entry points within the concrete slabs and cavities of walls. The steel mesh and fastening system physically prevents the termites from entering the building. The mesh is too fine for the termites to squeeze through, too hard to chew through, and highly corrosion resistant for future break down.
****

The stainless steel termite mesh barrier shall be placed across all openings, joints, penetrations and other termite entry points to the building (including all shrinkage cracks in concrete slabs and built penetrations in slabs and walls that termites may use for access point)and as per manufacturer's recommendations. The termite mesh shall be clamped, parged adhered, bonded and/or embedded to the material surrounding the opening as per the manufacturer's recommendations. The termite barrier mesh system shall be installed with no gaps, penetrations or damage to the mesh system.

1.3 SUBMITTALS

****
NOTE: Where a "G" in submittal tags follows a submittal item, it indicates Government approval for that item. Add "G" in submittal tags following any added or existing submittal items deemed sufficiently critical, complex, or aesthetically significantly to merit approval by the Government. Submittal items not designated with a "G" will be approved by the QC organization.
****

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-02 Shop Drawings

Barrier Mesh

Shop drawings of the termite barrier mesh system installation at all perimeter foundations, joint and penetration conditions.

SD-03 Product Data

Barrier Mesh

Accessories

System Description

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials or equipment for some portion of the work.

Manufacturer's Guidance; G

Visual Inspection Guide; G

SD-04 Samples

Barrier Mesh; G

Samples of stainless steel mesh to be used in this work, 102 x 102 mm .

SD-07 Certificates

System Installers; G

Certification that installers meet the requirements specified under paragraph entitled "Qualifications of System Installers.

Materials

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

SD-08 Manufacturer's Instructions

Manufacturer's Installation Instruction Manual.

Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data sheets concerning impedances, hazards and safety precautions.

SD-09 Manufacturer's Field Reports

Site Conditions

Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.

Written verification that site conditions are as required and other site work will not disturb the installation.

SD-11 Closeout Submittals

Warranty

Written warranty required in paragraph entitled "Warranty" and signed jointly by an officer of the Contractor and the supplier.

1.4 QUALITY ASSURANCE

1.4.1 QUALIFICATIONS OF SYSTEM INSTALLERS

a. The installer shall be trained and accredited by the system supplier.

b. The installer shall employ only workers trained and accredited at the appropriate level by the system supplier.

1.4.2 PREINSTALLATION MEETING

Convene a preinstallation meeting at least one week prior to beginning installation, to review conditions of preparation, storage and handling, installation procedures, sequencing, protection and coordination with other related work. Attendance by the project superintendent, installer, installer's crew leader, and representatives of the trades affected by this work are required. Notify the Contracting Officer at least 10 calendar days before meeting.

1.5 DELIVERY, STORAGE AND HANDLING

Deliver materials to the site in original unbroken packaging and containers, with original labels in place. Store materials in conformance with system supplier's recommendations.

1.6 WARRANTY

****
NOTE: Use 5 years for family housing and 3 years for other types of facilities.
****

Furnish a [3] [5] year written warranty against infestations or reinfestation by subterranean termites of the buildings or building additions constructed under this contract. Perform annual inspections of the building[s] or building addition[s]. If live subterranean termite infestation or subterranean termite damage is discovered during the warranty period, and building conditions have not been altered in the interim, the Contractor shall:

a. Correct defective stainless steel mesh installation and perform other treatment as may be necessary for elimination of

subterranean termite infestation;

b. Repair damage caused by termite infestation; and

c. Reinspect the building approximately 180 calendar days after the repair.

PART 2 PRODUCTS

****

NOTE: Check with local agencies to determine the local building code requirements and specifications to ensure conformance where required.

****

2.1 MATERIALS

2.1.1 Asbestos Prohibition

No asbestos containing materials or equipment are permitted at the job site. The contractor shall ensure that materials proposed for the project are asbestos free.

2.1.2 Barrier Mesh

Stainless steel mesh shall conform to ASTM A 478 and ASTM A 580/A 580M, Type A1AA marine grade 316 stainless steel mesh of 0.18 mm diameter wire with mesh openings of 0.66 x 0.45 mm.

2.1.3 Accessories

Parging adhesives, bonding cement, high grade stainless steel clamps, ties, and other accessories as recommended by system supplier.

PART 3 EXECUTION

****

NOTE: The stainless steel mesh must be installed in a manner to provide maximum protection to the dwelling. The material provides a physical barrier to the termites, thus, preventing entry. A range of techniques and material widths may be required to meet site conditions. The designer is required to determine the extent of openings to be covered to provide quantity estimates for the material installed.

****

3.1 SURFACE EXAMINATION

3.1.1 Examination

Examine the substrates and conditions under which work of this section will be performed. Do not proceed until unsatisfactory conditions detrimental to timely and proper completion of the work have been corrected.

3.1.2 Verification

Provide a written verification that the site conditions under proposed slabs is proper for the installation of termite barrier system as per manufacturer's recommendations. Work related to final grades, landscape plantings, foundations, or any other alterations to complete construction

that might alter the condition of the site, shall be coordinated with this specification. The Contractor shall not proceed until any unsatisfactory conditions detrimental to timely and proper completion of the work have been corrected and that the following are complete:

a. The ground has been cleared of wood scraps such as ground stakes, forms and other termite food sources.

b. The site has been compacted and cushion fill has been placed and compacted. Soil particles in the work area shall be finely graded with particles no larger than 25 mm and compacted to eliminate soil movement to the greatest degree. The condition of the site shall meet the manufacturer's recommendations prior to installing the mesh barrier.

c. Footings and foundations, and outer forms are in place.

d. Communications, electrical and plumbing penetrating pipes are in place.

3.2 INSTALLATION

3.2.1 Instructions

Strictly follow the manufacturer's instructions published in Manufacturer's Installation Instruction Manual.

3.2.2 Installation Sequence

a. Install mesh as required, fit and clamp mesh around all pipe penetrations, and terminate at perimeters as appropriate for the building construction as described in installation manual.

b. Install special fittings appropriate to construction as described in installation manual.

c. Following installation of mesh, vapor barrier, install reinforcing steel and concrete specified under other sections.

d. Where required, integrate mesh into subsequent construction as described in installation manual.

3.3 PROTECTION

The installed termite mesh system, attachments and accessories shall be protected before, during and after the work of all trades as required by the system supplier or directed by the Contracting Officer.

Dissimilar metals shall not be used in contact with the stainless steel mesh to avoid an electrolytic reaction.

3.4 VISUAL INSPECTION GUIDE

To maintain resistance to termites, the system shall be complete and not disturbed, penetrated or damaged during the remaining contract time period. The installer shall provide Manufacturer's Guidance for performing a visual assessment of the installed mesh barrier to ensure the mesh barrier provides the designed termite physical barrier.

3.5 FIELD QUALITY CONTROL

In the event following trades on the site move or damage the mesh, clamps or parging mix, immediately contact the mesh installer, for recommendation of necessary repairs.

-- End of Section --